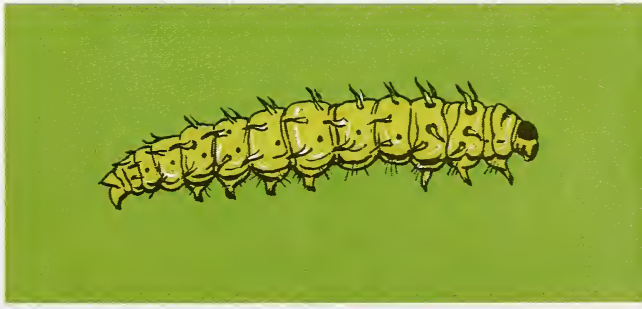
the SPINY BOLLWORM



UNITED STATES DEPARTMENT OF AGRICULTURE • PA-758

The Spiny Bollworm

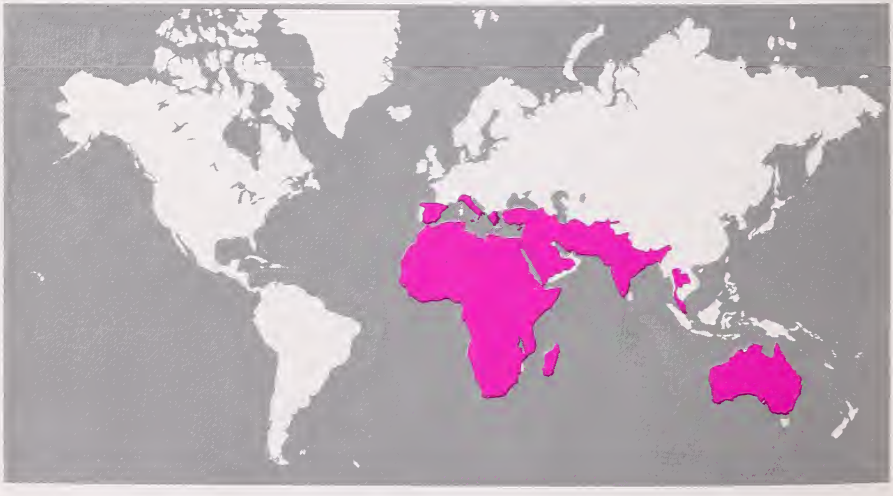
The spiny bollworm[1] is not known to occur in the United States. **It may get in.** ***If it does, and if it becomes established, the spiny bollworm may cause serious damage to many crops. Resulting financial losses could be heavy. Watch for this insect and for any other insects you do not recognize. Report them promptly so they may be identified, controlled, and possibly eradicated.***

The spiny bollworm attacks cotton, okra, hollyhock, hibiscus, and other plants in the mallow family.

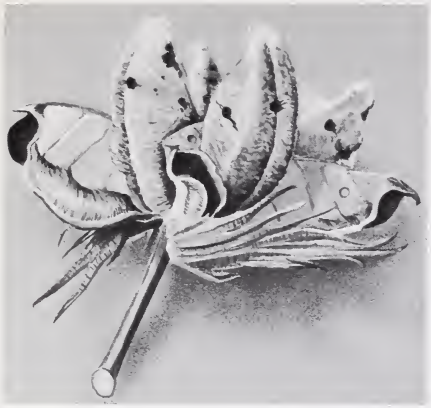
Wherever the spiny bollworm occurs, it is one of the most serious pests of cotton. It is considered one of the worst pests of cotton in India. There, 8 to 60 percent of the crop may be damaged through attack on the tender stems of young plants. When the cotton reaches the fruiting stage, infestations range up to 75 percent. Infestations of 83 percent have been observed in northern Sudan. During 1952, the spiny bollworm destroyed over 90 percent of the cotton crop in Israel and 40 to 80 percent of untreated cotton in the Baghdad area of Iraq. Cotton growing in southwestern Iran is impractical without control of this pest, and late cotton often is severely injured in Spain.

The spiny bollworm is widely distributed in areas of the world that ship huge quantities of products to the United States. It occurs throughout Africa, the Middle East, South

[1] *Earias insulana* (Bdv.).



Geographic distribution. Red areas indicate parts of the world where the spiny bollworm occurs.



Damage to cotton boll caused by the spiny bollworm.

Asia, and the Far East. It is found in Australia. In Europe, it occurs in Spain, Sicily, and Turkey.

DESCRIPTION OF INSECT

The adult of the spiny bollworm is a moth that has a wingspan of ¾ to 1 inch. Color of the forewing usually is grass green; the hindwing is white. The female lays about 400 tiny bluish-green eggs on shoots, stalks, flower buds, and bolls. These hatch in 4 to 7 days. The newly hatched larva is brownish white and has a dark head and markings. Orange-yellow "spines" or tubercles are prominent on the back. A full-grown larva is about ¾ inch long. It is greenish white and is covered with black and orange dots on the back. Most segments have two pairs of tubercles. The pupa is purplish brown and is enclosed in a tough dirty-white to light-brown silken cocoon.

DESCRIPTION OF DAMAGE

Damage is caused by the larvae, which feed on the numerous host plants mentioned in this publication. Larvae enter the shoots, stalks, flower buds, stems, and bolls and feed for 9 to 16 days, moving from one plant to another. In warm climates, this pest breeds almost continuously; consequently, the plants seldom are free from attack.

THE PLANT PEST PROBLEM

At least half of our most destructive insects entered the United States from other countries, many before the Plant Quarantine Act of 1912 was passed. Today, thousands of plant pests are intercepted at our borders by plant quarantine inspectors, but some gain entry.

Moth and larva of the spiny bollworm. Enlarged.

When a new pest is detected, organized efforts are exerted to (1) pinpoint the areas where it has become established, (2) set up a quarantine to prevent spread, and (3) control the pest and eradicate it if possible. The sooner a new pest is detected, the better is the chance of controlling or eradicating it before it does serious damage.

WHAT YOU CAN DO

Watch for this pest in cotton. Young larvae of the spiny bollworm appear in large numbers early in the season when cotton is small. Examination of bolls would be an important survey method. Look for larvae in stems or bolls. Any unfamiliar larvae causing damage at this time might be spiny bollworms. Later in the season, an unusual number of unfamiliar moths appearing at regular intervals of 4 to 8 weeks should be investigated.

If you find larvae or moths you do not recognize, send specimens to your nearest agricultural official. The dead moths should be loosely wrapped in soft paper, placed in a small box, and mailed. Mail the larvae in a small bottle containing rubbing alcohol. Include a note giving your name and address, date of collection, and locality where the specimens were found and on what plant. Do not send live specimens. If your local agricultural official does not recognize the specimens, he will send them to the proper authorities for identification.

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